REMARKS

Applicants have carefully reviewed and considered the Examiner's Office Action dated December 8, 2008. This Amendment accompanies a Request for Continued Examination (RCE) and reconsideration is respectfully requested in view of the foregoing amendment and comments set forth below.

By this Amendment, claim 1 is amended. Accordingly, claims 1, 4 and 8-13 are pending in the application.

Claims 1 and 8-13 were rejected under 35 U.S.C. §103(a) as being unpatentable over JP 2003-155552A (hereinafter referred to as "JP '552"). This rejection is respectfully traversed.

The Examiner alleges on page 2 to page 3 of the Office Action that

> JP (552A) discloses that although the doors are provided, they are only used to hold the temperature in each chamber only … these doors would be kept open all the time during a continuous carburization treatment wherein the desired temperatures in each chamber are the same and the desired material to be treated has a length greater than the total length of JP (552A)'s continuous vacuum carburizing apparatus.

In actuality, JP '552 discloses from the last sentence of paragraph [0028] to the beginning of paragraph [0029] that:

> It is because carburizing gas will flow into other heat chambers from the open door in the case of movement and carburization which is not planned will be performed, if carburizing treatment is performed to transit time. If a fixed baton passes, the door between the second heat chamber 7 and the third heat chamber 8 will open …

Consequently, JP '552 teaches that the door between adjacent heat chambers **is closed** during carburizing treatment. Thus, it is unclear why one of ordinary skill in the art would consider modifying JP '552 for treatment of a material that has a length greater than a heating chamber of JP '552.

While the Examiner responds that he is applying the broad disclosure of JP '552 rather than the preferred embodiments illustrated in the Figures of JP '552, there is no disclosure of preventing the carburizing medium in the carburizing atmosphere from entering the carrier gas atmosphere, and preventing the carrier gas in the carrier gas atmosphere from entering the carburizing atmosphere while keeping both the carburizing atmosphere and carrier gas atmosphere open and spatially connecting with each other, as recited in amended independent claim 1 of the present application. The abstract of JP '552 states that "the pressure … in the vacuum cell and outside the heating chamber is kept lower than the pressure in each heating chamber 6, 7, 8 and 9" of JP'552 so that the "air (gas) of space besides said two or more heat chambers does not flow into said each chamber" (Paragraph [0011], last sentence of the English Translation of JP '552). That is, there is no disclosure of preventing the carburizing gas from entering a carrier gas atmosphere in an adjacent heating chamber and a carrier gas (from another heat chamber) from entering the carburizing atmosphere.

JP '552 discloses that if two different treatments are carried out (e.g., a carburization and diffusion treatments), in order to move a processing article to the following heat chamber which adjoins from one heat chamber and to prevent carburization gas from a door between heat chambers being opened wide and flowing into other heat chambers, it is necessary to perform other treatments before the carburizing treatment (Paragraph [0013], last sentence of JP '552 English translation. Thus, JP '552 acknowledges that carburizing gas can flow into adjacent heat chambers when the doors are opened. Consequently, JP '552 teaches against keeping the doors opened at all times when two different treatments (different atmospheres) occur at

adjacent heat chambers, and by extension, JP '552 teaches against the claimed invention.

As a result of the claimed invention, a long continuous metal wire, metal strip or metal pipe may be continuously moved throughout a carburizing atmosphere and then, a carrier gas atmosphere to carburize the continuous material thereby causing the carbon carburized in the continuous material to be diffused into the inner sections of the continuous material without interruption of the continuous movement. Unlike the claimed invention, JP '552 does not form "a carrier gas atmosphere, in which the carburizing medium gas does not exist and which is spatially continued from the carburizing gas atmosphere by supplying and discharging carrier gas to an from another area adjacent to the carburizing area in the enclosed space", as recited in independent claim 1. Instead, JP '552 discloses a heating chamber 6 in which inactive gas is introduced, a heating chamber 7 in which carburizing gas in introduced, a heating chamber 7 in which inactive gas is introduced and a heating chamber 8 in which an inactive gas is introduced. All of the chambers are separated by doors (see paragraph [0025] and paragraphs [0028]-[0030] of the English language translation of JP '552). The disclosure of doors in JP'552 between the inactive gas and the carburizing gas teaches against the "continuously passing one of a continuous material … through the carburizing atmosphere and the carrier gas atmosphere" of independent claim 1 of the present application. Accordingly, it is submitted that the Examiner failed to set forth of *prima facie* case of obviousness and withdrawal of this rejection is respectfully requested.

In view of the foregoing amendments and remarks, it is respectfully requested that the rejections of record be withdrawn and that a Notice of Allowance be issued indicating that claims 1, 4 and 8-13 are allowed over the prior art of record.

It is believed that no fee is due, however, the Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 22-0261, under Order No. 31238-225900.

Should the Examiner believe that a conference would advance the prosecution of this application, the Examiner is encouraged to telephone the undersigned counsel to arrange such a conference.

Respectfully submitted,

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